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Harriet Keith Fobes.

New Years 1925

MYSTIC GEMS

A SCARAB BRACELET OF MYSTIC GEMS

MYSTIC GEMS

HARRIET KEITH FOBES

"There is upon Life's Hand a Magic Ring,
The Ring of Faith-in-Good, Life's gold of gold;
Remove it not, lest all Life's charm take wing."

BOSTON
RICHARD G. BADGER, PUBLISHER
THE GORHAM PRESS

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TO MY MOTHER
ELIZABETH CUSHING FOBES
WHOSE VISION WAS OF
"LOVE AND USE TO THE NEIGHBOR"

ACKNOWLEDGEMENT

This little book, devoted to the history of twelve wonderful stones, was brought into being by suggestions from a group of National Arts Club friends, to whom my grateful thanks are due—Mrs. Anne B. Leonard, Dr. George F. Kunz, and the late Spencer Trask, and Emerson McMillan.

The frontispiece is from a painting by Theodora Larsh, and the other illustrations from photographs by Jessie Tarbox Beals.

My acknowledgments are due to every one who ever wrote a line on the subject. Every such book is like the center of a spider web with its radiating threads.

153 Carnegie Hall,
New York, N. Y.

PREFACE

Running through all the ages there is the story of the sentiments attributed to the collection of the twelve Birthstones, one for every month of the calendar year, the names of which have often changed, but whose colors are always true.

It is believed that the designation of these twelve stones was brought into vogue in Europe in the fifteenth century by a group of astrologers from Arabia. Not until the eighteenth century in Poland did the custom of wearing the stones by individuals, as birthstones, originate.

There is no doubt that this group of stones was intimately related to the twelve stones in the breastplate worn by the High Priest Aaron, as given in the seventeenth chapter of the Book of Exodus. Each stone represented one of the twelve tribes of the Children of Israel, the name being engraved on the stone. In Egypt, about 4000 B. C., another high priest wore a breastplate of twelve small stone balls, or crosses. Our knowledge of this significant ornament is from a temple relief, and would indicate a relationship to Aaron's breastplate.

In the time of Moses, these stones must have been familiar to the Egyptians of the thirteenth and fourteenth centuries, B. C., but not those in the breast-

plate of 70 A. D., which was taken to Rome by Titus after the capture of Jerusalem.

It is thought that the jewels of the Temple at Jerusalem at that time may yet be found buried in one of the unknown treasure chambers in the old capital of Persia.

Josephus, who wrote in the first century A. D., and St. Jerome, writing in the fifth century A. D., both mention the special stone dedicated to each month, and distinctly proclaim their connection with the jewels in Aaron's breastplate. In addition, it may also be said that these twelve stones bear a distinct relation to the twelve signs of the Zodiac.

The twelve foundation stones of the Holy City, as written in the Book of Revelations, and the order in which they are given, were used to determine the succession of the natal stones for the months of the year.

The theme of innumerable legends, stories, and fables is that these twelve birthstones have come to be recognized as having an extraordinary significance in their relation to the twelve months of the year.

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MYSTIC GEMS

CHAPTER I

THE GARNET FOR JANUARY

No gem save garnets should be worn
By her who in this month is born.
They will insure her constancy
True friendship and fidelity.

The garnet is the birthstone for January (the two-faced Janus, the god of the beginning of all things), and is assigned to Aquarius, the water-bearer, the Zodiacal sign for that month. It is the emblem of faith, truth, and grace, denoting constancy and fidelity. Its red color symbolizes fire and stimulus, and it also stands for Mars, the god of war. It has often been likened in ancient tales to a glowing coal.

In the old books it was allotted to "Tuisco," Tuesday:—

If Tuisco assists
And at birth keeps apace
The bairn will be born
With a soul full of grace.

In the Book of Seals is given "a garnet with the image of a lion engraved thereon to protect and pre-

serve the honors and health of the wearer." In the old Dream Books we find that to dream of garnets meant "the accumulation of riches." "It furthermore brings sleep to the sleepless, drives away the plague and all evil spirits, and attracts to its possessor riches, glory, honor and great wisdom, and, to crown all, constancy with fidelity to all obligations." Legends say that the house which lodged a garnet was protected from lightning strokes. What could be more desirable than to be born in the month of January and to be the rightful owner of a stone which assures these gifts?

The garnet is the stone of cheer, exhilarating the spirit and dissipating sadness and gloom. It warns its owner of misfortune by losing its color and splendor.

This is the most ancient of stones, according to the testimony of early writings, and it was originally called both "ruby" and "carbuncle," as well as garnet. The term "carbuncle" is an error and probably originated in Rome where any fiery red stone was called a "Carbunculus," so derived from "Carbo"—coal. Rightly used, a carbuncle may be any stone cut "en cabochon," and is not one particular stone by that name. Amethyst carbuncles are very common. Stones are rounded, not faceted, when cut

GARNET

Old Indian garnet, with pendant of "cinnamon" garnet—Hungarian buckle and pendant—Carbuncle ring in antique setting—Bohemian garnet ring.

"en cabochon." Often a single stone is cut in both styles, the top rounded, and the bottom faceted for greater effect of color. It requires a larger stone to be cut into a carbuncle since it has greater depth of color and, therefore, enhances its value.

The name "garnet" is derived from the Latin "Granatus," meaning "a grain," which it resembles in the formation of its crystals, many hundreds of various sizes having been found in one pocket, a glowing mass of color. Another name given to this stone is Almandite.

The Mohammedan Koran affirms that the light of the fourth Heaven is given by carbuncles, or garnets, and that the red glow is all pervading. From the Bible we learn that the first stone in the Ephod of the High Priest, or the Breastplate worn by him, was a garnet, and was given to Reuben. The blood-red color of the garnet suggests its use as a symbol of the Divine Sacrifice of Christ on the Cross.

There are old tales of the value of the garnet when used medicinally. The stones were pounded to powder for doses and were applied to the person as poultices. It was a common belief, held by the ancient peoples, that the garnet was an antidote for poison, preserving the health of the wearer, and preventing any tendency to over-indulgence or luxuri-

ous living. It was gravely recommended as a heart stimulant and was so powerful in its action that all were warned against displays of passion, fearing apoplexy would result. Though Mars is the war planet, and the garnet belongs to Mars, the idea of war is not meant when the curative powers of the stone are mentioned.

In an old Bohemian manuscript of 1391 a list of precious stones, fifty in number, are noted for their medicinal use. Garnets and other red stones were used for inflamatory diseases and had a calming influence on quarrels, discords, and hot temper generally; a homeopathic touch of "like cures like" that is most naive. The symbolism of color plays a great part in all these cures. The heat of a fever was supposed to be absorbed by the red of the garnet. Garnets were used for all patients, but "those born in January felt a mystic influence over the twelve parts of the anatomy that greatly helped the cure."

In 1867 an old writer stated he was told that the rulers of the Island of Ambion owned a magic carbuncle brought to them by a serpent. This ruler, when a child, lay sleeping in a hammock under the trees. A great serpent crept up and dropped the gorgeous glowing red stone on his breast. In gratitude for this gift, the parents gave the serpent food

and drink and by virtue of its power they became the rulers of the island. The stone shone so brilliantly at night that the corner of the room where it lay was alight. Later it is said, it came into the possession of the King of Siam.

Benvenuto Cellini tells a marvelous story of a "luminous garnet" or a carbuncle, as follows:

"Jacopo Cola, a vine grower, going into his vineyard at dusk one night, noticed a gleam of light in a far-off corner among the vines. Hastening toward the glowing light, he could not locate it, for the radiance had vanished into darkness. Then returning to his home, he was about to give up the search, when again it flashed, and again he carefully approached the gleam and found it at last in the heart of a rough stone at the foot of a vine. Joyfully he took the stone back and showed it to his friends, and one of them, being acquainted with precious jewels through his travels in Rome, bought it for ten scudi, and later sold it to a Venetian envoy, who carried it to Constantinople, there selling it to the Sultan for 100,000 scudi."

The garnet crystals are often found in river beds, or imbedded in rocks like plums in a pudding, or seeds in the pomegranate. Some are easily taken out by the fingers, or with a pocket knife. These

crystals are many sided and irregular in outline. They often form over other minerals, so when broken, small grains of quartz are found. Garnets have been found in East Woodstock, Maine, having an inner part of calcite.

It is interesting to know how stones become polished even before man discovers their hiding places. Stones cut each other, that is, when the water in a river rushes into a pocket in which stones are confined in the bed rock, the constant action of the water causes the stones continually to rub against each other, thereby polishing themselves. Gem cutters use the same method in polishing and bringing out the brilliancy latent in the cleavages or planes of the stones.

The " Cape Ruby " is a beautiful variety of garnet found in South Africa, and has always been associated with the best diamonds. It is found in the river beds, quite at home with the diamond there. Together with other stones, it is washed down the river beds in the freshets. In the Ural Mountains violet and cinnamon colored garnets are found, also some so green that they are often taken for emeralds, or olivines, "Unanonite," it is then called, which is a very hard variety of garnet. The " Essenite " is a garnet of a soft " dregs of wine " color, like a jacinth.

Ancient Alabanda, in Caria, Asia Minor, produced the finest variety of garnets in size and color. These were in great demand in Rome, and were set by the Roman metal workers in amulets, rings, bracelets, and necklaces. These stones are to-day noted for their soft red-violet color and exceptional brilliancy.

Bohemia is the greatest garnet centre in the world. It is interesting to note that before the war, ten thousand men were steadily employed in cutting, setting and making garnet jewelry. Three thousand of these alone cut and ground the smaller stones for use in the watch-making industry, and as emery dust for machinery.

We have garnets of beauty and value in the Navajo Territory, Arizona and New Mexico. They are collected by the Indians and soldiers from huge ant hills, where they are guarded by scorpions. Perhaps the ants and scorpions have an eye for color, for they are not soft playmates, those garnets!

In Alaska the garnets lie in the Striken River. If found in Montana this stone is called the "American Ruby," and is of the blood-red variety. In Warrensburg, N. Y., garnets are mined from beds in granite pockets. Some of the pockets are as large as a bushel basket. Some of the most valuable stones are egg, or bean shaped, and are of fine quality.

Precious stones of many varieties have been found in New York State. The largest gem stone found in Manhattan Island is an enormous garnet weighing nine and a half pounds, known as the Kunz Garnet, given by Dr. Kunz to the National History Museum. It was discovered while excavating in Herald Square, New York City.

Garnets were also found when the McAlpine Hotel was built. A choice quarry was located in 1888 at Broadway and 65th Street. Here from one pocket alone fifty-nine garnets were taken. A dealer who bought the output was rewarded by finding in addition 1,000 fine stones.

CHAPTER II

THE AMETHYST FOR FEBRUARY

The February-born may find
Sincerity and peace of mind
Freedom from passion and from care
If she an amethyst will wear.

February's stone is the amethyst and is assigned to Pisces, the Zodiacal sign for that month. Those born in this month have the gift of sincerity. Of old it was said the possession of an amethyst prevented violent passions, appetites, and desires of the body, and insured peace of mind after conflict and temptation had been overcome. The soothsayers claimed the virtues of this stone for those in any sort of business,—for lawyers, soldiers, sailors, and "those who loved the hunt and chase." It was also supposed to produce sleep, and the superstition that it brings immunity from trials and troubles is still most popular.

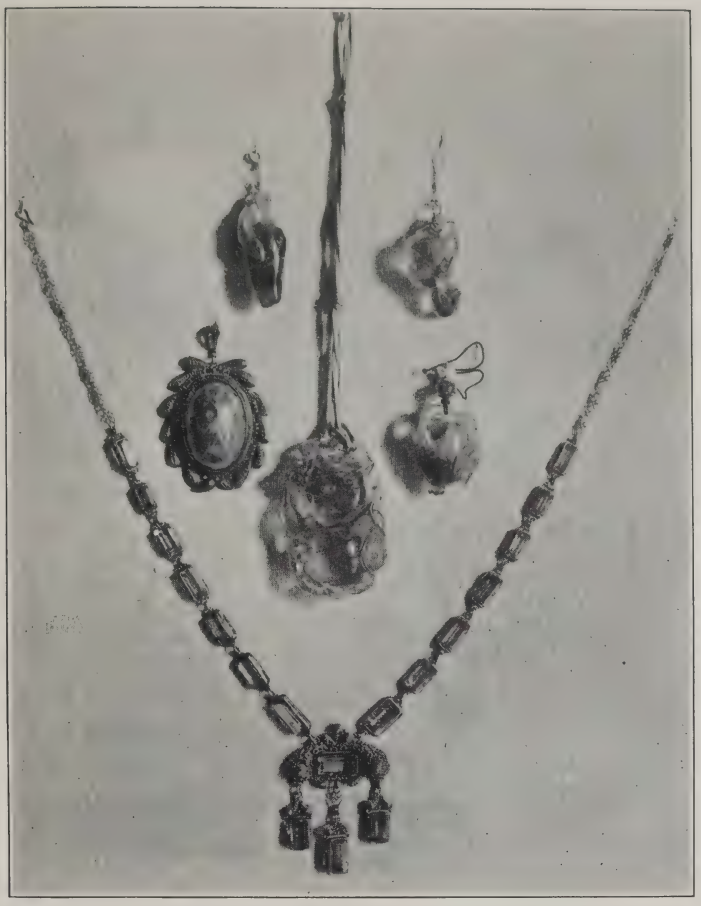
This is the precious stone dedicated to the Bishops, and, curiously enough, to the heathen Bacchus as well. The Book of Seals says, "A bear, if engraved on an amethyst, will put to flight demons, and preserve the wearer from drunkenness." The name of the stone in Greek is " amethustos," meaning " not to

inebriate," and thence come the merry tales of Bacchus and Diana.

There is a pretty legend in French verse which tells of the god Bacchus, offended by some neglect of Diana. "He was determined to avenge himself, and declared that the first person he met should be devoured by his tigers. So by the forest path, in the company of his friends and animals, he gayly traveled. Fate willed it that the beautiful maiden called Amethyst was on her way to worship at Diana's shrine when Bacchus saw her. In fear of the tigers, Amethyst called to Diana to save her, and there, before his eyes, Bacchus saw the beautiful maiden changed to a pure white sparkling image of stone. With regret and repentance, Bacchus poured the juice of the grape as a libation over the stone, thus giving it the exquisite violet shade for all time to come."

So, according to the legend, we owe the color to Bacchus, and it is said that he also promised to all who drank wine from cups of amethyst that they could by no chance become intoxicated.

The amethyst is surrounded with sentimental interest in all times of the worlds history. In mediaeval times it was the soldier's amulet, preserving the wearer in battle. Many a pious crusader who nightly



AMETHYST

Old square stones and pendant—A "star" amethyst pendant—
Carved Chinese pendant with fruit and bird motives.

told his beads, relied also upon the "purple stone" that hung as a charm beside his rosary.

In the old days it was claimed that two days of the week were given to the amethyst,—Wednesday and Thursday, and that the wearer was guarded by three planets,—Venus, goddess of love, Jupiter, and Mars.

According to these old writings this stone "should be worn on Thursday and set in copper." Roman matrons valued the stone most highly as a charm to retain the affections of their spouses. A German writer of the Eleventh Century says, "an amethyst owned by a man attracts to him the love and affection of noble women, and protects him from thieves."

The amethyst colors of red and blue, making violet, are symbols of power and light. The deep violet color stands for true and deep love. Poets have called it the stone typical of the dawn and the evening, the deep azure purple of the beginning and the ending of the day. It was dedicated to Saint Valentine who is said to have worn a ring of amethyst "bearing a figure of cupid." The old customs of St. Valentine's Day which featured Cupid, give a certain appropriateness to this idea of the ring.

Moreover, it was given the name of "Arthur" as well as amethyst, to indicate that it was a male stone.

The Egyptians called the stone "hemag." The signet ring of Cleopatra was of amethyst engraved with the figure of Mittras, the Persian deity who symbolized the Divine Idea, the source of light and love.

The Egyptians believed that the different stones were endowed with certain talismanic properties, and that these stones, combined in strings of beads for the neck, afforded adequate protection from all manner of evil. Both men and women wore these necklaces.

In the Egyptian Book of the Dead, much is made of a heart cut out of amethyst, and in the great Boulaq Museum in Cairo there are preserved two heart-shaped amulets of amethysts.

One of the most beautiful in design of the old Egyptian necklaces was recently acquired by the Boston Museum. It belonged to Princess Sat Hartror Ant, of the Twelfth Dynasty, and is composed of eighty-eight beads in all shapes, from one-fourth to two-fifths of an inch in diameter. The beads are slightly flattened, and bored from end to end meeting in the middle, drilled by hand, and the amethysts are sand-polished which gives them the dull finish. The whole is set in symbolic gold carving and constituted a charm of great power for the protection of the wearer.

The amethyst was the ninth stone in the breastplate of the high priest of Israel and was called "allamah," meaning in Hebrew "amethyst," and signifying the controlling power of virtue by the medium of dreams. It was the stone of the tribe of Dan, standing for "Judgment,"—hence the amethyst for justice and courage. It has always been associated with religious forms, and from long usage has been the Episcopal gem in the Bishop's ring. Its color is regarded as imparting especial dignity and beauty to the priesthood of the Roman Church, and is that of the royal raiment of kings.

The amethyst belongs to the quartz family. There is the smoky quartz, the yellow and brown quartz known as the brothers, and the white mystic one which discloses the future to crystal gazers, is one of the sisters. The rock crystal is the finest of all the family, and the tourmaline shows its rainbow colors in columns so beautiful that it would seem as though a touch would melt them into air.

Beryls and topazes are the companions of the amethyst and are often found together in the earth. There is no doubt that of the quartz family the amethyst is the most popular. There has never been a period when this stone, with its royal violet color, was not in fashion. Even the softer colors were

popular, and the shades of brown and grey stones are exceedingly beautiful.

In its native crystal state the amethyst looks like a bed of violets springing from the rough brown or grey granite stone with its pointed crystals shading from white to lavendar, lilac, violet, red violet, and purple, flashing in the light, a mass of beautiful color.

Amethyst crystals are found in huge blocks on Mackinac Island and on the shores of Lake Superior. Thunder Bay was noted for the light, brilliant quality of the stones found there. Large pieces of the stone found with rose quartz, a sister stone, are used for ornaments, both indoors and out. In Connecticut, similar blocks are used to enliven the dull stone walls. These have no gem value, but nevertheless are of the same family,—poor relations, maybe.

Ceylon and Brazil are noted for their beautiful amethysts. The natives cut them before sending them to the cities, the "facet" cut being the most popular, though a fine stone "en cabochon" (which means cut in a high, dome-shaped manner) is probably worth more. With a combination of both cuts, these stones are truly marvelous.

The Bengal amethyst is one of rare color and it is not often found in these days. Its exquisite pink

flush over the purple gives it a gorgeous wine color, soft and indescribable.

Amethysts are often found in the British Islands. In Scotch literature, a city of gems is described by Lucien in his "Vera Historia." "The walls were of emeralds, the temples for the gods were formed of beryls, and the altars in each were of a single amethyst block of enormous size. The city itself was of gold, a fine setting for these marvelous gems."

In the Louvre, there is an amethyst engraved on both faces. On the upper face is a priest with his wand or staff, and on the reverse side is a priest with an incense burner, offering vegetable and mineral sacrifices. This is an old Egyptian amulet which belonged to one of the Pharoahs. The gold work of the setting is most elaborate.

The intrinsic value of the amethyst to-day is not so great as that of the stones which are called "precious." At one time, however, the amethyst was very rare and most valuable. A necklace of matched gems was made for Queen Charlotte of England at a cost exceeding two thousand pounds.

It is truly a royal stone whose color dignifies the wearer. From the ring of Edward the Confessor was taken the great, glorious amethyst now found in the crown of Great Britain's ruler. It is imbued by tra-

dition with the power to save the King from contagious diseases.

CHAPTER III

THE BLOODSTONE FOR MARCH

Who on this world of ours her eyes
In March first opens may be wise,
In days of peril firm and brave
Wears she a Bloodstone to her grave.

To March belongs the bloodstone, a variety of jasper which belongs to the famous quartz family, though the bloodstone is not one of its crystals. It is found in white, yellow, green and red, but the jasper is more often red than green, and where the two colors have mixed together, the bloodstone results, with added richness. Its relatives are the heliotrope stone and the hematite.

From an old legend we learn that when the Roman soldier pierced the side of our Lord, the drops of sacred blood fell on the stones beneath the cross. These stones were green jasper quartz, and since that time these stones, wherever found with drops of blood red in them, have been known as "bloodstones," and they have come to be greatly venerated.

This is the stone of wisdom, courage, and strength. The possession of it was supposed to bring the owner health and strength, mentally and physi-

cally, to guard him from deception, and to give him the respect and consideration of his companions.

> Who wears a Jasper, be life short or long,
> Will meet all dangers brave, wise, and strong.

The ancient peoples had curious "touching stones," and the bloodstone was one of the most popular. It was placed in contact with food, even dipped into liquids, to detect poisons. In olden days it was considered hardly possible for a person to be so poor that his house did not hold a piece of this stone. If it were the owner's birthstone, its power was doubled.

The many strange ideas regarding this stone caused it to be classed with the stones of mystic properties. The soothsayer, by means of it, predicted future events. In producing rain, it was an "audible oracle." It was said to have the power to turn the sun's rays to blood-red, and create earthquakes and convulsions of nature. It was thought that when cast into pure water, bubbles of gas arose, and the water became blood-red.

To dream of bloodstones was to expect distressing news, yet the North American Indians always cut the bloodstones into heart-shaped pieces to ward away evil, as also did the Arabians.

BLOODSTONE

Persian carving of dragon and soldier—Egyptian bead, native cut with silver chain—Polished and cut stones in necklace with pendant.

Jupiter and Saturn are the planets governing the month of March. To these, and to Thursday, the jasper is dedicated. Aries is the Zodiacal sign for this month and stone.

Jove's presence at birth
Means a long swath to mow
For if born on Thor's day
Thou hast far to go.

In Paris there is an exquisitely carved head of Jesus Christ, so modeled that the drops of blood from the Crown of Thorns are of the red spots of the jasper. The Field Columbian Museum of Chicago contains another piece of statuary similarly carved from bloodstone.

There are many tributes to the bloodstones in the old books of medicine, interwoven with folk lore. A recipe of powdered bloodstone and honey was used internally for tumors. Mixed with the juice of heliotrope flowers and rubbed over the face and hands of a person, tradition says it would render them invisible. Wearing this stone was thought to prevent bleeding to death.

Vasari (1514-1578) wrote about one of his friends, Luca Signorelli, the artist, who did him a great service. He was watching his friend at work on an altar piece in a church at Orezzo when he was

seized with a giddiness and hemorrhage, and fell fainting to the floor. He lay unconscious and might have died, had not Signorelli brought his bloodstone amulet and quickly used it to stay the flow of blood by placing it between his shoulder blades.

The Egyptians wore jasper in jewelry of all kinds. As long ago as 5000 B. C., and on down through the years, it was a favorite with the Hebrew and Syrian peoples. It was used for prayer beads, having a heart-shaped pendant, and as such, was worn so smooth and soft, it was like a baby's skin. In fact, the jasper is capable of being polished until it has the quality of velvet.

This stone is a native of Egypt, Siberia, China, the United States and Canada. On the Island of Rum, in the Hebrides, are found stones of a fine quality. The gem variety which is rare and more valuable for jewelry, comes from the mines of India. It is always popular for a seal ring or fob, and the modern style is more often plain, but highly polished. Stones used for rings in ancient times were cut signets composed of heads and figures of men and beasts, and were used as symbols.

Jasper is really one of the marbles and is as beautiful in masses as it is in small pieces. Before the Assuoan Dam is reached the Nile rapids seethe

around the Elephantine Rocks which are of bloodstone, carved by nature.

This dignified and beautiful green stone can be seen in the Old World churches, museums, and palaces, made into cups, statues, small vases, and bases of inlaid tables, altars, and even columns.

CHAPTER IV

THE DIAMOND FOR APRIL

She who from April dates her years
Diamonds should wear, lest bitter tears
For vain repentance flow. This stone
Emblem of innocence is known.

April's stone is the diamond. In it are combined all the colors of the rainbow, and it gives out a clear, white radiance which has earned for it the first place among precious stones. It is a combination of icicle and dew drop, sparkling like frost on a cold winter night, and like raindrops caught by the rays of the sun. It is the gem of the spring and denotes innocence and repentance.

Innocence, repentance—sun and shower—
The diamond or the sapphire is her dower.

Dr. Kunz tells the following legend in one of his books:

"When the God of the Mines called his courtiers to bring him all known gems, he found them to be of all colors and tints and of varying hardnesses,—the ruby, emerald, sapphire, etc. He took one of each; he crushed them; he compounded them, and

DIAMOND

Old cluster pin for gentleman's stock—Louis VI ring—Onyx ring with lily design—Old Spanish brooch—Carved gold locket and chain.

said: 'Let this be something that will combine the beauty of all; yet it must be pure and it must be invincible.' He spoke, and lo! the diamond was born, pure as the dew drop and invincible in hardness. But when its ray is resolved in the spectrum, it displays all the colors of the gems from which it was made. 'Mine,' said the god, 'must be the gem of the Universe; for my Queen I will create one that shall be the greatest gem of the Sea.' For her he created the pearl."

An Orphic poem, celebrated in the second century, says:

> The Evil eye shall have no power to harm
> Him that shall wear the diamond as a charm
> No monarch shall attempt to thwart his will
> And e'en the gods, his wishes shall fulfill.

The diamond belongs to the planet Jupiter. The star-gazing Chaldeans have a tradition that it was influenced by seven planets, and dominated by Saturn and the Sun in conjunction. There is a classical myth connected with the stone. In ancient times there was a man named Diamond of Crete who refused to obey the command of the oracle of Jupiter, whereupon the god transformed him to stone.

The Hindus dedicated the diamond to Venus. Since she is the Goddess of Love, it is probable that

the origin of a solitaire as the engagement ring grew from this.

The virtues of the diamond were only attained if it were received as a gift, some writers claim. If the stone was stolen, dire misfortune followed the thief, for the spirit which guarded the stone would be offended. Old tradition says that the diamond was to be worn on the left hand or arm. A fine stone would lose its brilliancy if the women wearing it became sinful.

In Sanskrit the diamond signifies "thunderbolt." Another ancient name given to this stone was "adamas," from the Greek root meaning "adamantine."

The diamond is of the carbon family, and thus related to coal. When rubbed with flannel it becomes electrified and shines in the dark and is phosphorescent and magnetic. Science has long been absorbed in trying to make the diamond synthetically, and though it has been accomplished, the process is so difficult and expensive, that only very tiny stones result. In 1893, Novissan of Paris produced microscopic black diamonds by heating iron saturated with carbon to a high temperature, and then suddenly cooling the mass. Mr. Hasslinger has obtained diamonds similar to those found in South Africa by

fusing a certain mixture, but the stones were very small.

Like other stones, the diamond was thought by the ancients to have medicinal value. The dust of this stone was, however, a deadly poison and dire tales are told of its mixture with food or drink, in the days when poisoning was popular. Curiously enough, one old book on medicine explains that while glass was poison, diamond dust was an antidote for this and all poisons. The Hindus say that if an inferior diamond dust were used for medicine, lameness would result. Of course, diamonds as medicine were most costly, and given only to kings and popes. Pope Clemont VII, in 1532, had a mixture of powdered precious stones costing 40,000 ducats, one dose alone of which cost 3,000 ducats, and most of this mixture was of diamonds. It is recorded, however, that after the fourteenth dose, Pope Clemont died!

A Spanish book speaks of diamond dust as curing bladder troubles and preventing the plague. The efficacy of this treatment was uncertain at best, for the sick usually died.

Aristotle tells the tale of Alexander in the Valley of Diamonds in Ceylon. "The natives told him that diamonds were generated in a valley where it was

six months night and six months day. This valley was full of venomous creatures that guarded the stones; crawling over the sharp points of them embued the diamonds with their venom, so that any one who handled the stones would die of poison." This served to keep the curious away.

Sir John Mandeville writes of the diamond, "They grow together, male and female, and are nourished by the mountain dew of heaven. They engender commonly and bring forth small children that multiply and grow all the year. I have often tried the experiment; keeping a little of the rock, with the diamond, and letting it be watered by the May dew often, they grow every year a little." But he does not say how long it would take to obtain satisfactory results!

Another author writes, "A lady of quality, a noble woman of Luxemburg, worthy of credence, had two diamonds bequeathed to her, and with them were produced others in most miraculous wise."

The diamond is found in alluvial soil, even sometimes loose in beds of streams like common pebbles, or great pieces of ice, covered with soil and grime.

India was the prize country for diamonds in 1304. Then came marvelous stones from the diamond district and market of Golconda, between Bombay and

Madras. In the southern portion was found the Kohinoor which means the "Mountain of Light," and in 1850 the uncut stone was taken to England where it was cut from 186 karats to 106. It was valued at $700,000, and is now one of the Crown jewels. A precious stone without a rival is the blue diamond of Mr. Hope. Its weight is 44⅛ karats and its color is the blue of the most beautiful sapphire, added to an admantine luster of the utmost brilliancy.

In Brazil, in 1728, curious crystals were found by the gold miners in river sands while washing the gold in the pans. These proved to be diamond crystals.

In 1867 the great South African diamond industry was brought into being, and it has fairly altered the map and history of that country. One day a little child of Barkley, on the West Vaal River, found a "blinken klippe" (brilliant stone), while playing in the sand. She took it home; it was bought by John O'Reilly, a roving trader, who sent it to Grahamstown where it was tested and pronounced a diamond. In March, 1869, a superb stone of 83 karats' weight was found in the same place, and sold for $125,000. It is called the Star of South Africa. So the great diamond industry began.

Amsterdam is called "the diamond city." The market consists principally of one unpretentious

street, Tulp Straat, where the huge bulk of all the diamonds of the world are bought and sold, after being cut and valued. The "genius boss" of the street is a man Charles Dickens himself would have enjoyed.

Thirteen and one-half millions of dollars worth of precious stones were imported into the United States in 1900, of which twelve million dollars were diamonds. For jewelry, machinery, and other purposes, diamonds are of essential value.

The greatest event in diamond history was in the year 1908, when there was cut in Amsterdam the great Cullinan diamond, destined to be the brightest jewel of England's crown. That crown weighed thirty-nine ounces, five penny weight before the Cullinan diamonds were added. They were eleven in number,—the largest in existence, with flames of blue white.

This crown of England is noteworthy. It contains 2,818 diamonds and 207 pearls among other rare and exquisite jewels—the amethyst we spoke of recently, a ruby valued at $500,000, given to the Black Prince of Spain in 1367. The Cullinan diamond was given to King Edward in recognition of his having given the Transvaal colony a constitution.

There are many well-known diamonds, and their histories would fill a book.

The famous Eugénie diamond, given to the Empress by Napoleon III, was found in India. It was first offered to a blacksmith for repairing a plough and he threw it away in anger, then later repented, found it and sold it for 6000 rupees to the ruler of Madras, who later sold it to Napoleon III.

The Dresden Green Diamond, in the Green Vaults of Dresden, is valued at $60,000 and weighs 40 karats; the "Polar Star," owned by the Emperor Paul of Russia (where are they now?) and two Persian diamonds called the "Sea of Light," 186 karats, and the "Crown of the Morn," 146 karats, are all very famous.

The Orloff, in the Russian crown, came from Hindustan. It was stolen from a Hindu idol with diamond eyes by a French grenadier who brought it to Madras. There an English sea captain took it and sold it to Orloff, of Russia, for $450,000 in cash and an annuity of $20,000.

The DeSauer diamond dates from 1570, and came from Constantinople. It was sent to Henry of Navarre by a messenger who was attacked and swallowed the stone, thus saving it. Queen Elizabeth bought it in 1695, and sold it again to Louis XIV for $125,000. It appeared again and in 1828 was sold to Prince Demidoff of Russia. From there it went back to India, and was at home once more.

In our country, diamonds are found in the Allegheny Mountains, Colorado, Manchester, Vermont, West Virginia, and in California, Wisconsin, and in Ohio, but none are of great size, color, or value.

CHAPTER V

THE EMERALD FOR MAY

Who first beholds the light of day
In Spring's sweet flowering month of May
And wears an Emerald all her life
Shall be a loved and happy wife.

The Emerald is the birthstone for the month of May. It denotes hope and joy, and is the emblem of perfect happiness, success in love, and immortality. It is the stone for spring and youth. Its virtues are many. There is an old saying that an emerald should be worn on the index finger, thus giving the wearer marvelous memory. To gaze into its depths would purify one's thoughts. Cardano declared the emerald sharpens the wits and quickens the intelligence, making people also more honest and true. It conferred riches upon its owner and the power of predicting the future, but only, so the legend says, if the light green emerald were used and placed under the tongue.

The lucky stone for Friday is the emerald, and it is therefore the stone of the planet Venus.

If Venus shall bless thee,
Thou shalt bless many living:
For Friga's bairn truly
Is loving and giving.

In love affairs the emerald was an invaluable help to those smitten by Cupid's shaft, for it revealed the truth or falsity of lovers' oaths in short order, and no mistakes! Even though assigned to Venus, it stood for the highest form of love and testified to the fidelity of lovers, the color waxing deeper or waning paler as love came and went.

> It is a gem that hath the power to show
> If plighted lovers keep their troth or no;
> If faithful, it is like the leaves of spring,
> If faithless, like those leaves when withering.

The emerald is one of the beryl family, the most noted child, and it is almost impossible to find it in a flawless state, since it is quite soft when first mined, becoming harder by exposure to the air. The crystals are dislodged from the matrix by water force, and collected by natives lowered down the shafts to the mines. In its crystaline form it has six sides, and when cut, the natural planes of the crystal are followed. The emerald has never been found in abundance, whether mined in Bogota, in the mines of Cleopatra, at Zabarah, Egypt, or, in the past century, in the Ural Mountains. The remains of some of these ancient Egyptian mines have recently been discovered, and are of vast interest.

The names the ancients gave this stone, though

EMERALDS

Emerald beads from a Chinese mandarin's chain, with pearls—Mexican gold brooch and pendant—Spanish pin and Russian brooch—A square cut emerald ring—Copy of Queen Ti's famous ring—Necklace with silver drops—A high pointed cabochon emerald—Ring of deep set emeralds and pearls.

differing slightly in the Persian, Greek and Latin, signify always, "the sea," "it is of water." The derivation of its present name is from the old French word "esmeraldra," and comes down through the modern French "emerande." So old is the emerald in the hands of man that two thousand years before Columbus dreamed of the New World, or Pizarro gathered stones by the hundreds from the spoils of Peru, there were found rare emeralds set in gold in the mounds of Tuscany, Herculaneum, and Pompeii. In the time of Alexander the Great, at the famous wedding feast of his eighty companions and their beautiful Persian brides, they used the emerald with pearls from the Persian gulf, as the richest ornaments to be devised.

Carved emeralds were very rare, the beauty of the stone exempted it from cutting,—in most cases en cabochon was the rule, the dome-like surface giving the greater depth of color, and suggesting its namesake, the sea.

Of the clear green of the emerald Pliny says: "There is no color so pleasing to the eye as that of the emerald. It is the only stone that charms without wearying the eye. Its lustre is not dependent on the sun or shade, nor artificial light. It shines continually with the same soft glow." Chemists have

claimed that the green of the emerald is the only pure color. Heliodorus, some two thousand years ago said, "These gems are as green as the meadows in the spring." It foreshadowed the future in its clear bright depths, for like visions seen in rock crystal, the eye seeks to read the emerald. It is very often designated as the purely virginal stone. Moore sings, in "Lalla Rookh":

> Blinded like serpents when they gaze
> Upon the emerald's virgin blaze.

The emerald is a spiritual stone. The ancients said the light of Paradise was the color of a perfect emerald. In the Mohammedan Koran, the color of the first Heaven is this same deep green, and in the Book of Revelations it is written of the Rainbow, "It is like unto an emerald." Alford says: "The form is that of the covenant bow, the color even more refreshing and more directly symbolizes grace and mercy—which is Charity." It stood for kindness and goodness and for strength of faith in adversity. The emerald is nourished with natural oil, that its transparent beauty may not change. The old writings say, "We conceive this stone to signify John the Evangelist," who was designated the "Oil of Charity."

The third of the twelve stones in Aaron's breast-

plate was an emerald. Its color is the canonical color, and it was used in religious observances and festivals, on altars and vestments. There is an old legend that when an emerald is worn by a celibate, he becomes invisible.

It was an old superstition that the emerald was an enemy to conjurers and tricksters,—magicians "could not weave a spell" if one were near. To dream of emeralds meant that there was "much to look forward to;" to wear them would give second sight, insight and foresight. A Parisian Oracle in mystics, Baron d'Orchamps, says, "Emeralds should not be worn by women before they are fifty, but men may wear them without danger at any age."

A ring containing an emerald was used in the Seventeenth Century for divination. The ring was suspended by a string over a bowl full of water, the edges of the bowl marked by letters of the alphabet. It answered questions by swaying against the letters. A man might call a devil, question him and receive answers, if he held an emerald in his mouth. Indeed, the clamor for the Ouija board today might perhaps be lessened, were those of us who possess an emerald to revive these interesting bits of ancient pastime.

Hindu physicians used the emerald for cures in all eye troubles, calling it cold and sweet to the taste.

Jewel workers of old rested their eyes while at work by gazing on an emerald. It was used in water for eye baths, causing inflamation to cease. Aristotle, in his book on gems, says, "An emerald hung from the neck or worn in a ring will prevent the 'falling sickness.' We, therefore, commend noblemen that it be hanged about the necks of their children that they fall not into this complaint." Nero, the Emperor of the Romans, used one as a monocle. Powdered emeralds were used in the Seventeenth Century as a drug taken internally for dysentery, epilepsy and bites by serpents, scorpions and others, also as a remedy for fevers.

Perhaps lured by the desire to possess this clear green gem, Cortez and his followers in the Sixteenth Century, crossed the sea and undertook the conquest of Peru. The emeralds he obtained from the Incas were brought to Spain and it was said they were marvels of stone cutting. One was carved as a rose, another as a fish with inset eyes of gold, another was a bell with a large pearl serving as a clapper. During the years following Cortez's visit, large quantities of emeralds were brought to Europe. Joseph d'Acosta, a noted traveler of that period, says that the ship in which he traveled to Spain carried two chests weighing one hundred pounds each, full of

fine emeralds. Pliny records a tale of " a marble lion with flashing emerald eyes which was set as a guard over the tomb of a petty king called Hermias." This tomb was on the seacoast and the lion's eyes at night frightened away the tunney fish, to the great loss and distress of the fishermen.

Many of the old and celebrated emeralds are now found to be of glass—whether they were so originally or substituted by thefts, is of course unknown. The Genoese emerald, now the famous "Sacro Catino," in the form of a cup or dish, is supposed to have been used by Christ in The Last Supper. At one time the church offered this to a Jew for the pledge of 100,000 crowns. When redeeming it, years later, there was great dismay to find six others claimed it. The Jew had copies made in green glass, so none were sure of the original.

Another tale says that from 1490 to 1555 a monastery near Lyons preserved a dish or shallow cup of emerald, called the Holy Grail. Agricola tells of this, and also another, in a chapel in Prague, measuring nine inches in diameter.

In Magdeburg was an emerald believed to have been the handle of Otto I's knife, since it was perforated, as many Oriental stones are for hanging from a string or chain.

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One of the most famous emeralds in the world surmounts the jeweled crown on the image of the Virgin del Sagratio, in the Cathedral of Toledo, Spain. It is a sphere, perfect in cut, one and one-half inches in diameter. The crown was made by a goldsmith, San Diego Alejoda Montoya, of Toledo, who began it in 1574, taking twelve years to complete it. The images of Faith, Hope and Charity are on it, and on Charity's head is placed the emerald sphere. It was stolen from the church by Marshal Junot who visited the Cathedral in 1809, during the French occupation. Seeing the emerald, he plucked it from its setting, saying to the bystanders: "This belongs to me!" and into his pocket it went. To replace this, a glass emerald was later placed on Charity's head.

Albertus Magnus relates of King Bela of Hungary, that he had two treasures which he dearly loved—his emerald and his wife. One day, greatly to his grief, the emerald on his finger broke into three parts while he was embracing his beloved wife.

A talismanic emerald was once the property of the Mogul of Delphi, and was recently offered for sale in European markets. It is deep green and weighs seventy-eight karats. On the edge of the stone, in Persian characters, runs the inscription:

"He who possesses this charm shall enjoy the special protection of God."

Queen Elizabeth, of England, gave an emerald to Henry IV, of France, and reminded him in her well-known manner that the gem possessed "the virtue of not breaking so long as faith was kept between them, entire and firm."

The Duke of Devonshire has the most beautiful and the largest known uncut emerald. It is a six-sided crystal, two inches long and two inches in diameter, perfect in color, transparent and almost flawless.

At the time when Mexico and Peru produced emeralds as cheaply as they have ever been produced in history, lamps and shades were often decorated with them. The Orient drew the largest amount of this flood of jewels. Mexican history tells of a throne of gold in the palace of Texcuco, surmounted by a human skull covered by a pyramidal emerald. The base of this emerald was so large that it covered the palm of the hand. Cortez took it and sent it to Spain, but the ship bearing it was held in battle with a French ship off the Azores, and so Francis I got the emerald.

Another of Peru's large stones, as large as an ostrich egg and called the "Great Mother," was taken

by Pizarro to Spain, but was captured by a pirate ship on the journey.

The finest emeralds in Europe were in Russia and belonged to the Emperor. The sceptre of Poland, which was in the Kremlin, has a broken emerald in its top.

CHAPTER VI

THE AGATE FOR JUNE

Who comes with summer to this Earth
And owes to June her hour of birth
With ring of Agate on her hand
Can health, wealth and long life command.

June's birthstone is the Agate. Those born under the June skies should be eloquent, full of health, assured of a long life and prosperity. Its virtues were those of "guarding from all dangers if worn by a bold heart," victory over temptation, and caution with regard to acquiring wealth.

To June belongs the following poem, since this month is in the sign of Cancer:

If born in Cancer's sign, they say
Your life will joyful be alway
If you take with you on your way an agate.

The Dream Book says: "To dream of agates will bring pleasant dreams to those born in June, but misfortune will befall those who wear the agate, or dream of this stone,"—if not born in this month. It also suggested "a journey to come."

To the agate was dedicated the midnight hour when mystic deeds were done. It is dedicated to the

works of science, and was highly esteemed, even venerated, among the ancients.

Agates are found in many colors,—white, grey, dull red, blue, yellow and brown. Each color had a separate and distinct virtue, as is attested to by the Egyptians who made images of their gods carved from all the colors of the stone. The savage tribes of Africa often used the magic black and white agate as a "hoodoo" against enemies.

The wonderful Aleppo stones of Arabia are known as "eye agates" with pupil and iris of brown and blue-white rings. So nearly like the human eye are these that they are frequently used as eyes in images of the gods in Egypt, as well as in the mummies of the great kings and priests. When used in these, they look so lifelike that the effect is often startling. In the Metropolitan Museum, in New York City, there are several examples of this use of the Aleppo agate.

The white part of the agate represented the old year, with its knowledge, and the dark part of the stone, the new year, since its future was dark and obscure. They were used for New Years' gifts, and given especially to one born on the last day of the year—St. Sylvester's Day.

It was said that the member of a family, or house-

AGATE

The famous "eye" agate—Chinese carving of green on white agate—Chain and pendants of blue agate called "Chalcedony"—The green moss agate and crystals of china.

hold, who was the last to arise on St. Sylvester's Day, would be late on every succeeding day throughout the year, as well as for every event during that year.

An old motto says: "Adorned with this, thou woman's heart shall gain, and by persuasion thy desire obtain, and if of man thou anything demand, shalt come with all thy wish fulfilled, rejoicing home."

The agates belong to the Quartz family and the moss agate is a close relative of the bloodstone and jasper, and shares the strength that is accredited to these stones of March. The carnelian, or sardonyx, is another member of the same family, and is August's stone. These three, the bloodstone, moss agate, and the carnelian share the same general characteristics, though their colors vary greatly.

The moss agates are the most remarkable and beautiful in color and form. In Hindustan they are called by the natives, the "Mocha stones," and as such are frequently worshipped. The name is derived from an Arabian seaport, celebrated for its coffee, and the finest agates are found here.

Both ancient and modern peoples believed that the mosslike patterns in colors, enclosed in the stones, were petrified vegetation so imprisoned, but, in reality, they are chemical formations of iron oxides.

The fly in the amber is a real fly, preserved like a mummy, but the moss in the agate is like marvelous snowflakes and frost impressions, and was caused by gases and pressure when the stone was yet in a soft state, with floating particles of mineral.

The story of the formation of the agate, in the darkness that lay on the face of the earth and waters in the ages of long ago, reads like a fairy tale. Cavities in the rocks held the water trickling in and out which in time, deposited a mineral sediment and evaporated. More and more water, then sediment, ad infinitum, and the agate was formed. Lakes, rivers, and the sea are the home of this stone. It is formed in trap rock in the West Indies and also in volcanic rock.

The eighth stone in the breastplate of the High Priest was called "Shebo," the name given in Hebrew to the grey and white agate. In the Book of Revelations, 21st Chapter, the 19th and 20th verses, in speaking of the foundation stones, an agate is mentioned. In Isaiah, 54th Chapter, the 11th and 12th verses, it is referred to thus: "I will make thy windows of agate." The bethrothal ring of the Virgin was cut from agate, and is now in the Cathedral of Perugia. The Bishop of Rennes wrote in the Eleventh Century, "The wearer of an agate shall be

made agreeable and persuasive to man, and have the favor of God."

The Romans gave the name of onyx to this stone from its similarity to the lustre of the finger-nail. Other family names are chalcedony, sard, sardonyx, and moonstone. Achates was one of the ancient names given to the stone by the Greeks who discovered it in abundance in a river of the same name in Sicily. In Hebrew the name signifies, "shining, or gleaming stones."

Sir David Brewster writes that in one inch of agate there are 1750 layers of fine, threadlike lines of color. This stone is peculiar for its great hardness, surpassing even steel in this quality. Because of this characteristic it is selected for the center of scales, pinions, and balances of clocks and watches. Some moss agates have been found in single blocks weighing as much as thirty pounds.

The chief supply of agates comes from Brazil. India was the center of the agate trade of the world at one time, and Indian rivers are still full of agate pebbles. The beautiful green varieties are in China, but here, as in Germany, the stones often are colored artificially to give red and yellow. Germany has done this from the earliest times by boiling the stones in honey for days, even weeks, and then

putting them into hot sulphur baths. In 1497 the center of the agate-cutting industry was Germany. In the last century, gem cutters were at work cutting the stones for amulets, to send to the Soudan, South Africa. The cities of Idar and Oberstein led in this trade, single firms making as much as $30,000 annually. Of late the trade has fallen off. On the west coast of Africa only white agates are used, and while the fashion on the east coast is not so discriminating, all colors are in demand.

The Rocky Mountains in the United States contain many agates. At Newport, R. I., are found rare agate pebbles marked by nature with a design that is like a Chinese mystic sign, or monad, and this device has become widely known in the United States because of its adoption by the Northern Pacific Railroad Company as a symbol. In the trap rock of the Connecticut River are many agates, and also in Mississippi and Minnesota, countless numbers of beautiful stones of all varieties were gathered by the Indians who called them "gleaming pebbles."

Stones with the same uncanny eyes as those which the Aleppo stones have are found on the shores of Lake Superior.

Like the garnet, the agate was used in liquid form in extracts as medicine. This was a cure among the

ancients for sleeplessness and it was applied to give a smooth skin, immunity from snake bites and eye troubles. Even now, our modern druggists keep tiny eye stones to chase the irritating cinders from ones eyes. In ancient Aleppo the natives suffering from boils found that the agate cured their suffering, and it is from this city that the Aleppo eye stone got its name. All western Asia used the agate for medicinal purposes and wore them around their necks for safety; these "eyes" were supposed to bring good luck.

There was published in Vienna, in 1709, a curious old print of an airship. Over the head of the aviator there was an iron network upon which were attached large coral-colored agates. These were beaten upon by the rays of the sun which magnetized them and the idea was that in this manner the craft was to be kept aloft. Alas for the airship when the sun did not shine!

Cameos are cut from the agate which contains two or three parallel layers of color. This custom still continues though begun at a very early time. Many are the collections of beautiful carved agate cameos. In the famous King collection which can be seen in the Metropolitan Museum of Art, is a piece of banded agate cut with the sign of Sagitarius, surrounded by

stars. This is the earliest horoscopical gem known to be in existence.

There is an interesting story told of Queen Elizabeth and the agate. At one time she had a portrait of herself carved in agate, and mounted in a ring. This she gave to her lover, the Earl of Essex. When in a fury she ordered him to the Tower of London, he sent the ring in haste to Elizabeth by the hand of a messenger. Through an error, this messenger turned out to be Lady Nottingham, one of the Earl's bitter enemies, who kept the ring and said nothing to Elizabeth. The Earl was executed, to Elizabeth's deep regret. Later, when Lady Nottingham was dying, she sent for the Queen, told her about the mistake and gave her the ring at last. At this the Queen shook the dying woman in a royal rage, exclaiming, "He may forgive, I never shall."

CHAPTER VII

THE RUBY FOR JULY

The gleaming ruby should adorn
All those who in July are born,
For thus they'll be exempt and free
From love's doubts and anxiety.

The glowing ruby is the birthstone for July, the month of warmth and color. It is the emblem of love, and in many languages it is called the "heart of love," or "the lover's stone." In the Bible it is written that the worth of a good wife is above that of rubies. It is star-favorite of the members of the corundum family, though its honors are shared by its twin sister, the blue sapphire.

Ruskin says of the ruby, "It is the loveliest precious stone of my knowledge—an uncut ruby." The planet Mars is the guiding star of those who wear this birthstone. Savage tribes in the old world used rubies for bullets in order that the wounds given in battle be more deadly, and they even cut their flesh to insert rubies, thus insuring invulnerability, as they thought, for then no part of the body could be harmed by spears.

For the woman who wears the brilliant ruby,

peace and love and concord with all men is assured. The old Dream Book speaks of it thus: "the ruby indicates joy and good fortune and the more rubies, the more joy. The owner of the ruby is feared by his enemies, when he wears the stone."

India is the home of the finest rubies ever mined, and no where else is this stone more valued for its beauty, they really worship a flawless specimen. There are four castes of rubies, as there are four castes of Hindoos, and woe betide the rubies that get mixed up. The ruby of the Brahmin order insures perfect safety to the owner, so long as it is not contaminated by contact with an inferior, in which case, its power is destroyed.

When a twin crystal is found in a ruby, it makes a wonderful six rayed star-shaped form, in a cloudy white film, over the red color of the stone. It flashes in the light, like something alive. Some of these stones are larger than an inch in diameter.

The name ruby was given in Sanskrit. The ancients called it "Sandastrous." Pliny tells us that these rubies contained stellated bodies which he compared to the Hyades, objects of great devotion by the early Chaldean and Assyrian Magi.

Aaron's breastplate contained for its fourth stone what was called "Nopek," which may have been car-

RUBY

Uncut ruby beads and pendant—Chinese gold carved buckle of ruby and jade—Ball of ruby matrix—"Pigeon-blood" ruby ring cut in cabochon—Faceted dark ruby ring.

buncle, garnet, or even more probably an oriental ruby of lustre. On this stone was carved the name of Judah. The ruby has been called the most precious of the twelve stones. It was the gem of Job, the man of many trials, but at the end, a victor. A legend of India says that the Lord created this stone first, then he created man to own it. To-day it is usually called fourth among precious stones, the diamond, emerald, and sapphire preceding it.

The ancients believed many things of the ruby. To them it was the "lord of gems," the "highly prized," and "dearly beloved." They believed only fairness and happiness could come with its gay color. The dark red and star rubies were called the male stones, the pink, and pigeon blood were the female. The red color signifies stimulation, heat, life, and power. The people of old believed the heart of the ruby glowed as an unextinguished flame. Old books of magic art tell us that "it is full of heat, and if cast into cool water, will cause it to boil up suddenly."

Medicinally the ruby is said to preserve the bodily health of the owner. If rubies were applied for many diseases, cures of all kinds were expected to take place. In Annobias' receipt for a "cure-all" there were thirty-four ingredients of powdered

stones, precious and non-precious, and rubies were the most prominent in the mixture.

Naharari, a physician of Cashmere, who wrote in Sanskrit of the medicine of the 13th Century, said "rubies are a valuable remedy for biliousness and flatulency." A famous "ruby elixir" was compounded by a secret process at great expense, and was used only for the wealthy patients. The ancient method of applying the ruby as a cure was to place it on the tongue, which was rendered at once cold and heavy, so that only incoherent sounds could be emitted. The fingers and toes also became cold, and a violent shivering followed. Thus the bad symptoms disappeared and a sense of elasticity and well-being followed—the cure was complete. This stone was also used as a disinfectant in dread diseases.

Burmah, Ceylon, and Siam are the homes of the best rubies. They are taken from volcanic rock of granite and limestone in which they are imbedded. Great quantities are also found loose in streams or in dry river beds, which are called by the natives "ruby sands." Rubies are seldom found larger than three karats. Those which exceed this weight are rare and extremely valuable, and are kept where they are mined, usually in India.

Ruby mines were found seventy miles north of

the capital of Burmah, and also in the forest mountain region of upper Burmah, 4,000 to 8,000 feet above sea level, at Mogok, near Mandelay. The principal mines are situated in two valleys called Kathay and Kyatapyan, and are most inaccessible. The climate is unhealthy for all Europeans and so keeps them away. There is an old legend which tells of the birth of these ruby mines. Once upon a time three marvelous eggs were laid by a serpent in a nest. The first egg hatched out the Mogul of Pag, the second the Emperor of China, and the third the ruby mines of Burmah.

In 1886 an Anglo-Italian firm paid annually to the Mogul of Burmah one hundred and twenty-five thousand dollars for the control of these mines. Later an English firm took them over, keeping the native workmen, however, because of the climate. Before 1886 the Capelan Mountains at Ava contained the finest mines, but very little is known of them now. They were near the capital of Burmah, but as the direction was only vaguely indicated, the exact location is uncertain. In 1795 Col. Symmes visited them with the British Consul, and wrote of his trip for publication. After that no Europeans were allowed to visit them, and they were very zealously guarded. All the finest gems were held as

the property of the Mogul, and among his titles was that of "Lord of the Rubies." To mine these stones by primitive methods of digging, the natives sank a pit through the earth until the gem strata was reached. After removing the stones, they were sent to Amarapoora to be polished, then cut.

In 1805 Professor Oldham found that one European had visited these mines. He was a deserter from the British army who was much in favor with the Mogul, and was made by him Superintendent of the mines. When a fine specimen was discovered, word was sent to the Mogul and a procession of grandees and soldiers was sent to escort the gem to the Royal Treasury. The state carriages of the Mogul were decorated with native gems.

Bambusson states that for one hundred and fifty years none of these ruby mines have been worked. All the rubies in the market were mined before that time, and those now offered for sale are from the collections of the ages. Three centuries ago it was often noted that in India people paid higher prices for rubies than did the Europeans. Consequently buyers collected in Europe, and returned to sell to the princes of India the rubies which came from India in the first place.

Most of the famous large, matchless rubies of today, either cut or uncut, set or unset, are to be found in the possession of those moguls, princes, maharajahs, and priests of India, who have received them as heirlooms or gifts, or have won them through battle. The Mogul of Burmah is said to possess a ruby the size of a pigeon's egg, while the Mogul of Pag has one as large as a hen's egg. The Mogul of Visapan has a ruby of fifty karats, and also one of seventeen and a half karats. The East India Company also claims a large stone. The Indian Buddhas are usually adorned on the forehead with a small ruby, since red is the symbol of the reincarnation of this god. A ruby light is always chosen by the Hindoos for the dwelling places of their gods.

Shah Jehan placed on the Taj Mahal, the tomb of his wife, a wreath of flowers of jewels, made of the finest gems in India. The roses were of the choicest rubies, with leaves of emerald glistening with diamond dew.

The ancient Romans excelled in imitation of the ruby, both in hardness, color, and lustre. A number of examples of their art are to be seen in European cabinets.

A story is told of the robber Duke Charles of Burgundy, who owned a collection of gems and carried

them with him to his battles. One ruby was a monster stone, given to him by Margaret of Anjou. One fated day he left it in his tent in a golden box, with a famous diamond. The Swiss captured it, and carrying it to Berne, offered it for sale to the wealthy Jacob Fuggen of Nuremberg. Suddenly it was discovered that this greatly prized stone was nothing but a lump of colored glass, undoubtedly of Roman origin. In 1280 a poem appeared in Germany which asserted that a good imitation ruby was as possessed of virtues as a precious stone. By a very abusive and indignant poem in reply, Volmas called for the death of such a rascal, and his sentiments.

French loot from the summer Palace at Peking contained a green jade Emperor's necklace, strung on a silken cord, and having a pendant of one huge ruby. Among the crown jewels of Persia, was the Chaie Sophy, a ruby the shape of half a hen's egg. Another ruby of great beauty and interest is the one at the top of the Maltese cross in the English crown. This stone was the gift of King Pedro of Castile, after the battle of Najaro in 1367.

It is interesting to note that the last message of Mary Queen of Scots to the Duke of Guise was accompanied by a beautiful ruby ring. Martin Luther chose the ruby for his betrothal ring, set in gold,

engraved with passages of Scripture. Philip de Valois said of the ruby: "It is the gem of gems, surpassing all other stones in virtue."

The price of a perfect ruby has always been high. In 1560 Cellini wrote that it was eight times that of the diamond. To-day it is about three times as costly as a diamond. Rarely do we hear of a ruby of more than ten karats in weight. Not long ago one of nine karats brought thirty-three thousand dollars in New York, and fifty thousand dollars in London. Two to three thousand dollars is the average per karat worth. At one time in Chicago a nine karat stone was sold for twenty-five thousand dollars, and one of eleven karats for eighty thousand.

CHAPTER VIII

THE CARNELIAN FOR AUGUST

Wear a Carnelian, or for thee
No conjugal felicity;
The August-born without this stone
'Tis said, must live unloved, alone.

The Carnelian is the birthstone for August. It has many other names, such as sardonyx, sard and chalcedony and belongs to the quartz family.

Of old, when the stone was found in three layers of color, black, white and red, it was thought these stood for the three cardinal virtues—humility, chastity, and modesty. The carnelian prevented misfortune when worn as an ornament, but the old Dream Book notes, "Carnelian: to dream of this stone means impending misfortune." Victory in all oratorical contests except those of love was supposed to be assured by the wearing of this stone. The constant wearing of it by those who had a weak voice was recommended by the ancients, for the warm colored stone gave courage.

This stone is supposed to have received its virtue from the Sun and Venus. The old books tell us it was influenced by the planets Jupiter and Mars, and

CARNELIAN

Ancient seals—cameos—unset stone—Chinese pendants with Persian and Indian beads and silver work.

was in the Zodiacal sign of Virgo, belonging also to Thursday.

The name carnelian is derived from the Latin word "carnio,"—flesh, and refers to the color. It is a translucent stone and takes a very high polish. It is found in all colors, often banded or blended one tone over the other, yellow and red with a tinge of brown, or is cloudy white with blue lights as found in the moonstone. The yellow carnelian is considered the female stone, the red being the male. The sard, sardonyx, or onyx, is a marble variety of the family, deep red in color. Chrysoprase is a "relative," green in color, chalcedony is a bluish stone, and the agate often yellow.

This stone is the emblem of loyalty to Christ. The Bible, in referring to it calls it sard, chalcedony, and frequently agate. It has been said that the Children of Israel, when living in the desert, engraved figures on carnelians and used them as seals, just as they are used to-day, though the ancient ones were more roughly cut. It is undoubtedly true that this was one of the first stones used and preserved in earliest times in Egypt. There has been some controversy as to whether this stone was the first or the eleventh stone in the Ephod of the High Priest. The first stone was called the "Odem," and in 300 B. C. Theo-

prastus wrote that it was of a red color, and called it carnelian, or sardonyx. The name of Reuben was engraved on it.

The Arabians frequently engraved the following prayer on a carnelian to keep away evil and to deliver the wearer from the wiles of the devil, and from the envious:

"In the name of God, the Just, the very Just, I implore you, O God, King of the World, God of the World, deliver us from the devil who tries to do harm and evil to us through Bad people, and from the evil of the envious."

These people believed that to envy the health or wealth of a person would cause him or her to lose them, a result which would be brought about by the devil.

Old medicine books show that the carnelian was also used medicinally "as a powder or worn as a ring, and was believed to prevent bleeding at the nose." Ancient peoples used the stone with a carved intaglio for ornamental wear, believing that it would cure tumors, prevent or cure all voice and throat infections, and, because of its cooling and calming effect on the blood, still the angry passions.

"The Book of Wings" was compiled in the Thirteenth Century by Ragiel, and gives the names of

the stones and the symbols to be carved on each, with a design. Thus,—"a man richly dressed and with a beautiful object in his hand" was to be engraved only on a carnelian, to check the flow of blood, and to confer honors on its owner.

Chapter 156 of the Book of the Dead says:

"This is the Chapter of the Buckle of Carnelian which is put on the neck of the deceased. The blood of Isis, the virtue of Isis, the magic power of Isis, the magic power of the Eye are protecting this great one; they prevent any wrong being done to him." In this chapter it is said that "the buckle of carnelian is dipped into the juice of aukhama, then inlaid into the substance of the sycamore wood and put on the neck of the deceased. Whoever has this chapter read to him, the virtue of Isis protects him; Horus, the son of Isis, rejoices in seeing him, and no way is barred to him."

This same book declares that a "heart-shaped amulet must always be worn." This amulet was of carnelian on which was engraved Chapter 29 of the Book. Since the heart was regarded by them as the seat of life, this custom shows in what high honor this stone was held. When an Egyptian died, his heart was enclosed in a special receptacle and buried with the mummy. Only after it had been weighed in

the balance of the "under world scales," against the symbol of Law, the feather, could it regain its place as the seat of life in the body of the deceased, so the story goes. To the Egyptian the scarab which is a carving of a common Egyptian beetle, was the symbol of immortal life. It was worn as a ring and after death was placed on the heart of the mummy. On its reverse side it always bore the name of the owner. It was made of clay or carved from the carnelian or other stones. In addition to this carving on the amulet, the images of living creatures were cut on the stone, the bull's head being used frequently.

In the Cairo Museum there are numbers of these amulets and scarab rings. In a special collection of the most perfectly carved, are nine carnelians which were without question the stones most favored in Egypt. The Egyptians used the carnelian for every kind of ornament. In the Eighteenth Dynasty, 1500 B. C., there died a young woman of exalted position. Her mummy was adorned with necklaces, rings, belt, amulets and bracelets, and practically all of them had one or more beautiful pieces of this stone. Three carnelian figures of the god Bes, seven of the hippopotamus goddess Tocris, one crocodile and four fishes, seven flower forms and two scorpions were on the first necklace alone!

It is of interest to note that the Greek peoples had different amulets for each day of the week. For instance, the carbuncle and carnelian, used by seafaring people, stood for the first day.

Carnelian beads in strings of uneven cut and length were, and still are, very common in Japan. As long ago as the iron age, the natives had amulets made of this stone, which were buried with the dead, some of them having later been found in the old graves.

The Bghai tribes of Burmah have superstitions woven around the carnelian as the Chinese have about the jade. They were installed as fetishes, and offerings of blood were made before them. "Spirits good and bad dwelt in stones," they said, "and if we don't give them blood to eat they will eat us!" "A man in one family died and his widow in wrath commanded their son to throw away the magic stone, but the spirits in the stone were not to be denied and the stone returned shortly, bringing two other stones with it, so the widow and her son were resigned," an old tale relates.

The popularity of the carnelian among Mohammedan peoples is said to be due to the fact that the Prophet himself wore on the little finger of his right hand a silver ring set with a carnelian engraved for

use as a seal. One of the famous Inmans (an attendant to the Prophet), Jafar by name, lent the weight of his authority to the belief in the virtue of the carnelian, for he declared that all the desires of any man who wore this stone would be gratified. Hence, in Persia, the name of one of the twelve Inmans, Ala, and that of his successor, were frequently engraved on this stone. The Mohammedans credit the carnelian with the power to preserve gravity and dignity in uproars, and they make a tooth pick of it to prevent bleeding of the gums.

One of the vases of Buddha offered to the Four Kings of Heaven was of carnalian.

The Holy Cross of the Cathedral of San Lorenzo, in Genoa, had carnelians of beauty set with several hundred other stones. In 1308 it was found in Asia Minor.

In Punjab, India, there has been found valuable Buddist relics, among them many fine engraved carnelians. India still produces the gem variety of this stone.

The natives of S. W. Australia made talismans of carnelian, winding them with opossum yarn and wearing them suspended at the girdle. They were supposed, so the story goes, to cure all ills and are borrowed from one tribe to another. A pecular cus-

tom demands that no woman shall be permitted to touch these talismans.

There was a carnelian seal worn by Napoleon I, Napoleon III, and the Prince Imperial. The legend engraved on it is as follows: "The slave, Abraham, relying on the merciful God." It was picked up by Napoleon I in Egypt and always carried with him on his watch chain. His nephew, Napoleon III, wore it and gave it to his son, the Prince Imperial, who in turn wore it and, in obedience to the injunction of his father, placed it around his neck. When he was killed in South Africa, the Zulus must have taken it when they stripped his body. They say that any one wearing the carnelian will never have injuries from falling houses or falling walls.

On February 10, 1901, near Luza in Persia de Morgerie, there was brought to light from a depth of six meters a bronze sarcophagus which probably dated from 350 B. C., containing the skeleton of a woman. Heaped on the breast and neck and head were masses of finely wrought jewels and coins. Blond and red carnelian beads were among the jewels, the deep red of the carnelians being in marked contrast to the light turquois and dark blue lapis lazuli beads.

CHAPTER IX

THE SAPPHIRE FOR SEPTEMBER

The maiden born when autumn leaves
Are rustling in September's breeze
A sapphire on her brow should bind
'Twill cure diseases of the mind.

The Sapphire is the birthstone for September, the gem of Autumn. Its color is the deep cloudless blue of the sky, and is appropriate to the season when the sun shines with less heat and brilliancy than in the summer, yet giving warmth to store up with the harvest before the winter comes.

The Sapphire denotes freedom from melancholy and evil temper. To lovers of precious stones, this is a great favorite. Elver Burton, in his "Anatomy of Melancholy," wherein precious stones are mentioned, writes of the sapphire: "It is the fairest of all precious stones of a sky blue color, and a great enemy to black choler, frees the mind and mends the manners."

In the olden days, to dream of sapphires meant "to escape from danger," yet if a King saw a blue gem in his crown while dreaming, it foreshadowed the loss of part of his kingdom, if not all of it.

SAPPHIRE

An uncut blue sapphire in Chinese gold buckle—Antique silver ring—Cornflower blue sapphire with diamonds—Ring with three star sapphires—Sapphire ball.

In very early Arabic and Persian history the sapphire was called by the hard name "Korund." From this later we get the word corundum. Reference was frequently made to it in ancient times as "lapis-lazuli," quite a different stone entirely, resembling the sapphire only in color. The sapphire, like the ruby, is of the corundum family. It exhibits every shade of blue that can be named,—the royal blue, velvet blue and cornflower blue are its finest shades. There are also fancy sapphires of canary yellow, blue green, and even brown. Red-brown sapphires are sometimes called zircons, and the purple and violet tints "Bengal amethysts." Tri-color sapphires have been famous, one being that cut long years ago in China, the figure of Confucius. In this gem the head was of white, the body and garments of blue and yellow sapphire. It has been said that the depth of color in a stone indicates its ripeness, pale stones being considered still unripe.

In many sapphires are found the cuniform characters, like feathers and twin crystals. The cuniform characters found on Babylonian tablets were without doubt suggested by the forms discovered in a certain kind of uncommon sapphire crystal found and venerated as supernatural by the Indian natives. The star stones are a cloudy blue or grey, not clearly

transparent. They are very beautiful, and alluring to the fancy, the stars appearing and disappearing, according to the angle of vision. Such stones were always used as talismans, and these people thought them to be the language of the "genii." The people of India, however, undoubtedly studied the structure of the precious stones so plentifully found in their land and the revelations thus obtained had much to do in shaping their religion and views on civilization, as well as their writings. The star-sapphire might be called the "Star of Destiny," the three cross bars symbolizing Faith, Hope and Charity. As the light changes, or the stone is moved, a living star appears. It is said to exert a good influence on its wearer.

In that wonderful Island of Ceylon, the search for stones is free to all the world and the Government has not yet made any restrictions. Here precious stones are found in great abundance on plains of thirty miles in extent, two thousand feet above sea level, at the base of the mountains which rise eight thousand feet high.

The old Indian poets tell of a legend of the creation of these stones on the island. One writer says: "When the young Cingalese maidens sway with the tips of their fingers, the stems of the lavali

blossoms, then do the two dark blue eyes of the Daitya fall, eyes with a sheen like that of the lotus in full bloom!" Hence it is that this island with its long sea coast and its interminable forests of Ketshas abounds with magnificent sapphires which are its glory.

Another poet writing of a river in Ceylon says "that lovely stream, the Kalnguaga, which meandered, as a sapphire chain, over the shoulders of the maiden Laubea"—the Cingalese name for Ceylon,

Near Ratnapoora, is the floor of an old lake which has dried up. This is called the "Plains of Ceylon" and here gems are found loosened free from the matrix. From these plains, the stones are gathered and taken to the gem mart, at Ratnapoora, (the City of Rubies, which is situated in the midst of the mines,) where they hold the annual Jewel Fair. At the Buddha Festival of the Pera, the Cingalese sell these gems to the Moors.

In 1882, the first sapphires were discovered in Bankkaa, Kashmir, India, by the fall of an avalanche. The stones were then abundant and cheap, the government not realizing their value. Later, the stones became zealously guarded.

Sapphires are mined in Kashmir, the Himalaya Mountains, Australia, and in Montana, in quantities.

The mines of Battamberg, Siam, yield five-eighths of the world's supply. The stones are found in light sandy clay, within two feet of the surface. Usually the mines are small pits. The clay is washed out and the stones picked up like potatoes from a potato hill.

The latest big find of this stone was in Central Queensland, Australia, at Anakie, twenty-six miles north of Emerald. Here, sapphires occur over an extensive area, and are found in all colors and sizes, often reaching thirty to fifty karats in weight.

The Peacock throne of Indian history is no myth. It cost $30,000,000. The two peacocks, with expanded tails, behind the seat or chair, were composed of rubies, emeralds, sapphires, and diamonds. The throne of gold, with inlaid silver steps was six feet by four feet, having a canopy of gold, fringed with pearls, and supported by twelve pillars encrusted with blazing gems. Between the peacocks was a parrot carved out of emerald and on each side of the throne was an umbrella of crimson velvet, called "chattans," also fringed with pearls. The handle was of gold, eight feet in length. This was the most costly work of art ever created. Shah Jehan, Mogul of India, left $125,000 when he died, with a crown worth $12,000,000 and this Peacock throne. When Delhi

was sacked, the throne fell into Nadir Shah's hands and was broken up without mercy. At Kandy, Ceylon, there is a wonderful golden case encrusted with sapphires, in the temple. Inside are five more cases, each smaller than the other and enclosing each other until in the last smallest case is found a sacred tooth of Buddha.

The wonderful "Star of India," after nearly three centuries of wanderings, is now in the Morgan-Tiffany collection, at the Natural History Museum, New York City. It weighs 543 K.

A sapphire of 132 K. is now in the Natural History Museum in Paris. This was found in Bengal by a poor wooden-spoon maker. After a long time, Rospoli of Rome acquired it and sold it to the French crown for 170,000 francs.

In the Hungarian crown is a fine old sapphire surrounded by four oblong green gems, the nature of which is not known. This crown has disappeared.

Baroness Burdette Coutts exhibited two immense sapphires valued at $200,000 at the Union Exhibition in London, in 1855. Also, there was shown a beautiful vase of sapphires, and a stone in the form of a drop which belonged to a Russian Countess.

The Imperial Crown of the First Order of the Czar of Russia, had an enormous blue sapphire of

great beauty and value, and the Russian Treasury was possessed of many other fine stones.

In France, the Orleans collection contains a carved sapphire. It is of the figure of a woman of great beauty, the head is of white sapphires and the body and dress of the most intense blue, and all is carved from one crystal of fine sapphire.

Burton, the African traveller, always carried a star sapphire as a means of winning the respect of the barbarous people there. They believed it to be a talisman of great power and feared to incur the owner's enmity.

The sacred character and mystic power ascribed to the talisman of Charlemagne made that sapphire possess a fascination over those visiting the Cathedral Treasures at Aachen. It was composed of two large stones cut en cabochon, one oval, and one square, constituting the front and back of the relic. A cross found in Palestine, and made of the wood of the Holy Cross, is enclosed by these sapphires. This cross is only visible when looking through the oval sapphire. The two pale blue stones are joined by brass, studded with precious stones. In 1804, the Empress Josephine went to Aix la Chapelle to take the waters, and visited the tomb of Charlemagne. Later Napoleon joined her and he commanded that

this relic be bestowed upon Josephine. Thus the famous talisman became hers. Her daughter Hortense later possessed it and gave it to her son, Napoleon the third. The Empress Eugénie is said to have worn it at the time of the birth of the Prince Imperial. Now it is said to belong to a private collection in Paris.

The Book of Wings says "the figure of a ram or a bearded man on a sapphire has the power to cure a person from many infirmaties, as also to free from poison and from demons." Medicinally, the sapphire was used in ancient times as an eye stone, it being credited with the power to remove all impurities and foreign matter from the eyes. Charles the Fourth used an oval oriental sapphire for "touching the eye." In 1757 sapphires were sold at about fifty cents a pound according to an old German druggist's price list. Von Helmont says "sapphires were used to cure boils, and had a magnetic force, which attracted all poisons." Among the gifts offered at St. Paul's in London, at the shrine of St. Eskinwald was a sapphire given by Richard Preston, in 1391, a citizen grocer. He stipulated that the stone should be kept at the shrine to cure eye diseases, and that a proclamation should be made of its remedial virtues.

The sapphire was the second Bible "foundation

stone," the tribal stone of Joseph. The sapphire was the emblem of Cardinals and other high church dignitaries. This stone was often referred to as "the soul" in old writings, and was ever associated with purity.

American sapphires are found at Coner Creek, Macon County, N. C. Here the finest crystals are taken from dimite and olivine rock. In Montana, in 1865, sapphires were found in the gravel of the Missouri River bed near Helena. Not until 1891, however, were these stones gathered for commercial uses. Probably, the placer miners who worked there for years threw out these stones, ignorant of their value.

CHAPTER X

THE OPAL FOR OCTOBER

October's child is born for woe
And life's vicissitudes must know:
But lay an Opal on her breast
And Hope will lull those woes to rest.

October's stone is the opal, a gem which possesses wonderful and aptly varied play of color, suggesting the glories of a bright fall day in the country. It is the most individual of stones, no two are ever found alike. It is full of light and beauty, with its soft fire combining the brilliant purple of the amethyst with the sea green of the emerald. The opal's splendor challenges even the blended colors of the painter's palette.

This stone is the symbol of hope, innocence and purity. Of old it was said to sharpen the sight and the faith of those who possessed it, as well as bring to those born in October good fortune.

When fair October to her brings the Opal
No longer need she fear misfortune's perils.

The magic power of this stone was supposed to render its wearer invisible, therefore it was called

the "patron of thieves." The power to warn of disaster was also attributed to it.

Curiously enough, the opal appealed to Shakespeare as a fit emblem of inconstancy. In "Twelfth Night" he makes the clown say to the Duke: "Now the melancholy god protect thee, and the tailor make thy garments of changeable taffeta, for thy mind is very opal."

The colors of the opal are varied and numerous, some are light, others are known as dark or black opals. There are also stones known as flame, golden, fire, and milk opals. Ruskin has said in his lecture on color "the opal in its native rock presents the most lovely colors that can be seen in the world, except in the clouds." Over 2400 years ago, a Greek poet in referring to this stone, wrote of its "delicate color and tenderness" which reminded him of a loving and delicate child. Poets frequently have made reference to the "opal colored morn," and Campbell says "the opal morn just flushed the sky." Another writer says:

> Aurora—with her opal light
> Night's horrors checketh, putting stars to flight.

There is a kind of "moss opal" resembling in the imagination a miniature of rare and beautiful forests. Others show the colors of a gorgeous sunset.

OPAL

Opals and emerald ring and fire opal—Antique chain with pendant "Daybreak"—Ring called "Autumn"—Black opal ring—Ring called "Mirage."

In admiring its beauties Newton was led to perform a series of experiments which gave to science brilliant and extraordinary discoveries. The opal is quite soft when first taken from the ground, but hardens upon exposure to the air, its degree of hardness being five, as compared to ten for the diamond. Wood opals are quite common. They are taken from the petrified heart of the tree, and are of great beauty and hardness. These are found in the western part of the United States. Agate opal comes in bands, of many colors, and there are also varieties known as jasper opal, and waxy, or resin opal.

If fire is applied to the stone it immediately disappears, leaving only a puff of smoke. Sulphuric acid acts on it, turning it black.

Certain weather conditions may cause the opal to lose its color, which may later be restored. Health conditions of those who wear the stone will affect its color, and brilliancy. Sick opals, it is said, have often been temporarily restored to color by immersion in oil.

The opal differs from many gems in that it is the product of the non-metalic mineral world, the earth which forms it containing sulphur and alumina. It exhibits no electric properties whatever, and though

one of the agate family, it yet differs greatly from other members of this family in many respects.

Leo and Aquarius are the Zodiacal signs for the opal, the red, or fire stone for Leo, and the dark, or black one for Aquarius. The opal has also been called the gem of the sun, and perhaps because it declines to follow the laws of the mineral world, just as the planet Uranus broke the known laws of the star kindgom, it was also assigned to this planet.

The name "opal" was derived from the old word "opalus." The old Sanskrit word for it meant "precious stone." The wearer of an opal was supposed to be protected from all disease, hence this stone came into use as a valuable amulet. The ancients treated all eye troubles with the opal.

Much of the modern feeling of superstition regarding this stone owes its origin to a careless reading of Sir Walter Scott's "Anne of Geirstein." It is the tale of Lady Hermione, an enchanted princess, who wore a dazzling opal in her hair. The life of the stone was bound up in her life, and when a drop of Holy Water banished the radiance of the stone, Hermione fell into a swoon. She was borne to her chamber, and a terrible storm raged all that night, lightning played about the castle, and the tale says that in the morning all that remained where Her-

mione had lain was a heap of ashes. After the publication of Scott's novel the decline in the sale of opals in Europe fell off fifty per cent, in one year.

Pliny, much impressed by the peculiar beauties of the opal, wrote: "There exists to-day a green opalus, on account of which Nonius was proscribed by Antony. Seeking safety in flight, he took with him all of his possessions. This very ring alone it is certain, was valued at one million dollars, and it was as large as a hazel nut."

This opal of Nonius was a remarkable stone, a marvel in ancient Rome. The story above refers to the time when Mark Antony endeavored to get this opal for Cleopatra. Nonius, not wishing to part with it, fled from Rome, preferring banishment rather than loss of the gem. It is thought this stone may have been the one found in an old ruin in Alexandria, Egypt, in the middle of the 18th Century. It was greenish in color, brilliant, and cut en cabachon, mounted in a ring. It hardly seems possible that this could be the opal of Nonius, for it is doubtful if it could have held its radiance for twenty centuries. The finest Hungarian opals show a serious loss of life and color within one century, or less, and some transparent Mexican ones crack and lose in a few years their color, which can never be restored.

The Edda tells of a sacred stone called the "Yarkastein," which the clever smith "Voland" (Scandinavian for Vulcan) formed from children's eyes. Grim conjectures that this name designates a round, mild white opal. Certainly the opal was often called opthalmos, or eye stone, in the Middle Ages, and it was a common idea that the image of a boy or girl could be seen in the pupil of the eye.

Blonde maidens valued the opal greatly as a hair ornament, and in necklaces, for when wearing opals the color of their hair was guarded and could not change. It is believed that in Queen Elizabeth's time opals, written ophal, were derived from the eye, and hence the ill luck story of the Evil Eye.

Cardan, in the 16th Century states that he bought an opal for fifteen golden crowns and found as much pleasure in its possession as he did in that of a diamond which cost five hundred crowns.

In London in 1836 a poem entitled "The Opal" was written by the Countess Blessington, as follows:

MOTHER—Come let me place a charm upon thy brow
And may good spirits grant, that never care
Approach to place a single furrow there.

DAUGHTER—Thy love, my mother, better far than charm
Shall shield thy child, and yet this wondrous gem
Looks as though some strange influence it had won

From the bright skies, for every rainbow hue
Shoots quivering through its depths in changeful gleam
Like the mild lightnings of a summer eve.

MOTHER—Even so doth love pervade a mother's heart
Thus, ever active, looks through her fond eyes.

The records of the locations of ancient opal mines in Arabia, Syria, and Asia, have all been lost. In the Middle ages the mines of Cemowitz in Hungary were actively exploited and at the opening of the 15th Century three hundred men were employed in the search for opals. At that time and for many centuries after, no breath of suspicion ever tarnished the fame of this stone. It was valued as a talisman and a thing of rare beauty.

There are mines in Honduras and Central America, but these are crude and undetermined. Honduras opals are more rare and are taken from porcelain earth in irregular masses, pale pearl to brown rainbow hues in color. When the rough exteriors are removed by the wheel of the lapidary and the stone given a high polish, the beautiful colors vanish, for the surface is too highly polished. A translucent surface gives the best play of color, and for this reason many of the finest stones were backed to refract the light.

Most Mexican opals are fine stones. In the State of Querctaro, the opal quartz runs in long veins. Here the workers receive twenty-three cents a day. The stones are polished with a grindstone and a chamois skin.

In 1909 a number of deposits of black opals were found in New South Wales. The finest stones to-day come from Australia, from the White Cliffs, Lightning Ridge. No opals have been found in the land of gems, the Orient.

Opals are not successfully imitated to-day. Pliny tells of the ancient art of opal imitation, which was so perfect that the difference could hardly be detected.

One of the most famous opals was that owned by the Empress Josephine. The stone was transparent, with an opaque base, and reflected such fiery gleams of red light that it was called "The Burning of Troy." The fate of this stone is a mystery.

The Field collection in Chicago, contains a Mexican opal in the image of the Sun god. It is very ancient, and is believed at one time to have been kept in a Persian Temple.

Queen Victoria of England was a great admirer of the opal. As each of her daughters married she gave them a collection of these gems.

One of the finest Austrian opals ever known now belongs to an English Duchess. This is an antique piece of jewelry in the form of a golden skull with "Ave" written across the forehead. The first night it came into the possession of its owner she dreamed that good fortune would always be hers if she kept the skull.

In 1909 in Austria a remarkable opal was found. It was a peculiar skeleton of a small serpent, opalized by nature, perfect in all its details, and having a splendid display of color. In ancient times it would have commanded a big price, for a serpent was the symbol of medical science, as well as of love.

The Imperial Cabinet at Vienna holds the finest, and most wonderful specimen of the opal yet found. It came from the mines of Hungary in 1770, and is three and three-quarters inches long, and two and one-half inches in thickness, weighing seventeen ounces. It was purchased by Austria for three hundred thousand dollars.

CHAPTER XI

THE TOPAZ FOR NOVEMBER

Who first comes to this world below
With drear November's fog and snow
Should prize the Topaz' hue
Emblem of friends and lovers true.

November's stone is topaz. Yellow is usually the color we associate with this stone, though it is found frequently of wine color, white, amber, blue, green and even grey. The topaz has been assigned to the planet Jupiter, and to Sunday. In ancient times it was believed that the power of the stone was increased or decreased by the position of the moon. Sagitarius is the sign of the Zodiac to which it is assigned. There is an old motto which correlates this stone with this sign:

Who first comes to this world below
Under Sagitarius should know
That their true gem should ever show a topaz.

In olden times people thought the topaz prevented bad dreams. It was the stone of strong people and denoted fidelity, loyalty and true love. The yellow topaz referred to in the Old Testament stood for benevolence,—the green variety for uprightness.

TOPAZ

Spanish topaz bracelet—Flat cut deep yellow beads—Oriental brooch with pearls—Light brilliant yellow necklace with crystals—Antique gold set topaz brooch—Bar pin.

Firm friendship is November's and she bears
True love beneath the Topaz she wears.

In the Book of Wings we are told "the figure of a falcon on a topaz helps to acquire the good will of Kings."

In the Ephod of the High Priest of Israel this stone filled the second place. It is recorded in ancient writings as having been worn by the King of Tyre, and is spoken of in the Book of Revelations as being the stone from which one of the gates of the Holy City was made. As one of the twelve Apocalyptic gems, it "stood for the ardent contemplation of the prophecies."

The Brazilians who found it on the shores of the Amazon River called these limpid, colorless stones "drops of water." The topaz of ancient times was called chrysolite, also Targhish which means "the golden stone," and in Spain it was "Tartessus."

Our name for it—Topaz—probably comes from the Greek "Topazios" which means "to divine, guess or conjecture." A band of adventurous sailors found the first of these stones on an island named by them Topaz Island because it was continuously hidden by fogs, thus making it necessary for them to guess as to its location. This island is now known as the Isle of St. John, in the Red Sea, and still holds a great

quantity of splendid stones, the crystals of some of which have frequently twenty-five sides. In "The Lapidarium of Marbodus," he wrote of this island:

> From seas remote the topaz came,
> Found in the Island of the self-same name.

Pliny also tells us of the same island. The first topaz was brought from there by the procurator, Philemon, to Berenice, mother of Ptolemy II, Philadelphus. This monarch is said to have had a statue of his wife, Arsinor, carved from a single stone, standing four cubits high. Three hundred years after Pliny's time, Epiphanius stated that a topaz was set in the crown of the Theban Queen, which shows that the early Egyptian also treasured the stone.

The crystal of the topaz is oblong in shape and is easily broken if dropped, and it is similar to the diamond in weight, though not so hard. If two stones, one being a topaz, are wrapped in separate papers, an expert will have no difficulty in knowing which contains the topaz, because of its weight. It takes a high, brilliant polish. Oriental topazes are so fine that they have been classed with the ruby.

The clear white variety of this stone is often called the "slaves diamond." In the Portuguese crown there is a white topaz called the Braganza, which weighs

1680 karats. This stone when found, was supposed to be a yellow diamond and was sold as such, but experts since have pronounced it to be a topaz. Many of the yellow and brown quartz are erroneously called by this name, but an expert is seldom deceived.

An interesting story is told of a white topaz which is in the British Museum, London, and weighs twelve pounds. When it first came to England it was sold by a marine-store dealer for the sum of three shillings, to be used as a door-stop in some one's house.

The pink topaz is made by heating one of yellow tint. It is packed in lime, magnesia, and asbestos, and heated slowly to a low red heat. When cooled the permanent pink results. This procedure, known as the "pinking" process, was common to the ancients and it was rediscovered by M. Dumellee, a jeweler of Paris in the year 1750.

The old Sanskrit word for this stone meant "heat," and it is probable that it was named for this very process of "pinking." Heat and pressure together applied to the topaz cause it to exhibit certain electrical phenomena of great interest.

In the 13th Century the Hindu physician Naharin stated that the topaz was "an appetizer of excellence," tasting sour and feeling cold, and that any man, wearing this stone, was assured long life, beauty and intelligence.

Many a curious legend has been woven about the old belief that the topaz quenches thirst. A Hindu magician who owned a famous topaz, was sent for by a rajah at a crisis in a battle, to help him win. The stone, however, failed to help, and the enemy prevailed. The owner of the potent topaz was left on the battlefield at eventide. Nearby was a dying soldier calling for water. The magician, sorely wounded himself, threw to him the topaz, saying: "Place it on your heart." This the soldier did and at once his thirst left him. On the morrow he was able to get up, and he looked for the body of the magician, but it was nowhere to be found.

St. Matthew, animated by divine zeal, was cured of all eye troubles through the association of the topaz, and the use of this stone was strongly recommended by St. Hildegard. To attain the desired end, the stone was placed in wine and left there for three days and nights. The patient was then supposed to go to sleep, rubbing his eyes with the moistened stone and letting the moisture lightly touch the eyeball. After the stone was removed the juice was taken internally for five days.

A Roman physician of the 15th Century was supposed to have wrought many cures of those stricken by the plague through the application of the topaz

which had been owned by two Popes, Clement VI and Gregory II.

On our continent there are topaz beds known in New Hampshire and Mexico, though the gem quality is inferior. In Russia the topaz mines are owned by the Government and the finest stones used to belong to the Czar.

Siberia is another home of the topaz, and Ceylon, Spain and Portugal also claim a large variety. Dr. Max Bauer asserts that the kingdom of Saxony has the finest European topazes. These are found in Auerbach, imbedded in a steep wall of rock. They occur in small fragments rich with tourmaline, and all are firmly cemented into a hard mass of quartz.

Queen Mary of England has a blue Queensland topaz which came from Austria. The story is told that it was in the possession of a shepherd boy at one time, and he, not knowing its true worth, hurled it at a barking dog that disturbed his slumbers one night.

At one time a famous stone called the Maxwell Stuart topaz, from the name of its owner, was brought to England from Ceylon with a number of inferior rubies and sapphires, for watch-making. It was sold for $17.50. Its true value, however, soon became apparent and it was cut. After twenty days of cut-

ting by the diamond wheel, a fine stone of 368 karats resulted. As recently as 1879, this topaz was the largest faceted stone in existence, though it is now surpassed by the Cullinan diamond of 516 karats. In 1902, Pope Leo received as a gift the largest known cut topaz; it weighed four pounds, and came from Brazil.

CHAPTER XII

THE TURQUOIS FOR DECEMBER

If cold December gave you birth
The month of snow and ice and mirth
Place on your hand a Turquois blue
Success will bless whate'er you do.

The turquois is the stone for December. Turquoise blue is the celestial color. This stone endowed the wearer with prosperity and victory over affairs of the heart. It has been said that the possession of a turquois would cheer the depressed soul. It brought its wearer health, and good fortune. Shakespeare speaks of Shylock's grief over the loss of his turquois ring. The amorous Jessica, taking away the ring, caused her father to cry out that he would not have lost it "for a wilderness of monkeys."

De Boot, the famous physician of Emperor Rudolph the Second, tells us that "the turquois could strike the hour correctly if suspended from a thread and held between the thumb and index finger in such a way that a vibration would cause it to strike against a glass."

Germany has always favored the turquois for love

and friendship rings, because if the wearer be unfaithful, the color of the stone will change. The turquois shares the virtues of the carnelian in many of the old writings. The jester of the court of Emperor Charles the Fifth replied to a question about the virtues of this stone, thus: "If you should happen to fall from a high tower whilst wearing a turquois, the stone will remain unbroken, but for you—I cannot say!"

De Boot tells the story of a "turquois in the possession of a Spanish gentleman for three years, at the end of which he offered it for sale with other of his possessions. To the amazement of those present when the stone was brought forth, its color was entirely gone. The father of De Boot bought it, notwithstanding, and because he was ashamed to wear such a mean looking stone, gave it to his son. The virtues of this stone are said to exist only when it has been given to some one. The son, De Boot, had his crest carved on it, and wore it like a common agate. In less than a month its beauty was restored, and it increased in splendor daily. De Boot tested the powers of his stone later, on a journey from Padua to Bohemia, when he was forced to travel on a dangerous road at night. His horse stumbled and fell, throwing him, but neither of them were hurt

TURQUOIS

A Chinese Madonna fruit pendant—Chinese carving beads and "Tree of Heaven" pendant—Thibetan matrix beads—Persian turquois—Inlaid Indian beads.

by the fall. Next morning De Boot, while washing his hands, saw that a quarter of the turquois was gone. Never-the-less, the stone did not lose its virtue, for another accident occured when a pole broke against his side, and he escaped unhurt, though the stone was cracked in two pieces."

This stone, the turquois, was introduced into Europe by Turkey, hence the old French word for it, meaning, "Turkish gem." It is the national stone of Persia, called "Piruzeh," meaning, the Victorious. Arabians call it a stone of good luck; on it they engrave a verse from the Koran, and it is inserted in pure gold. Pliny refers to the turquois as "Calais" in his Natural History, because it was shot down from unapproachable rock lands.

The beautiful blue and green colors of the turquois, the sky-blue, apple green, greenish grey, and the favorite robin's egg blue, are all caused by the presence of copper in the stone. Like the opal, the turquois may alter its color. Soap and water will cause it to change so quickly that many fine stones have been ruined thus. The condition of the wearer's skin affects the color also, and perspiration often turns it to green. Illness of the wearer will turn the stone pale, and at death it loses its color entirely, only to regain it on the hand of a new possessor.

Its changing hue is offered as a symbol of wifely devotion by one writer. "A true wife should be like a turquois stone, clear in heart in her husband's health, and cloudy in his sickness."

There are many stones which appear to be turquois, but which in reality are not. These are bone fossill, colored by a phosphate of iron, and are rightly called bone-turquois. A solution of ammonia will soon detect the fraud, though it will ruin a good stone as well.

Medicinally this stone was used by the ancients as a paste to treat diseases of the hip. From the 14th Century up to the present, harnesses for horses, dogs, and other animals have been adorned with the turquois in preference to any other stone. These were used to protect both animal and master from injury in a fall. Egypt so employed the turquois at a very early date. Volmar, in the 13th Century, wrote: "Whoever owns the true turquois set in gold will not injure his limbs if he fall—whether on foot or horseback, if he be wearing the stone." The turquois mounted in a ring of silver is used in Egypt to aid the eye-sight in case of a cataract.

Originally the turquois seemed to have been used as a man's gem, for in the 17th Century De Boot again wrote, that "it was highly valued by men," and

that "no man considered his hand well adorned unless he wore a fine one." Englishmen who travelled in the Orient made the turquois ring much in vogue. Women rarely used this gem.

The very earliest history of this gem is not known, but far back in the history of ornamental stones the peoples of the Orient had a great love for the turquois. In Egypt, India and Mexico, mosaic turquois are found ornamenting temples, altars, columns, furniture, and jewelry. In Cairo, in one mosque, roof and pillars are so encrusted with small stones of turquois that the blue color is all-pervading, so it has been called the "Blue Mosque."

The Persians fully appreciated the beauty and power of their "national stone." Their unexhausted mines are very ancient, and stones of the purest color and quality are still taken from their depths. This mineral differs from nearly all the others held in favor as gems, in that it never occurs in crystaline form. It takes a very high polish, similar to that of glass.

The people of Persia have a saying that to escape evil and attain good fortune, one must see the reflection of the new moon either in the face of a friend, on the Koran, or on a turquois.

In the mines of Persia this stone is found in nar-

row seams with clay slate. There are several mines in the region of Nistapur, and in one town, Maader, the people devote themselves entirely to the work of mining and cutting the stones. Forty thousand dollars' worth of the gem is taken from these mines annually, one pound selling for four hundred dollars at the mines, the price in European markets being double that sum. These ancient mines at Nistapur were described in 1300 A. D., as belonging to Isaac, son of Abraham, of early Biblical history.

Arabia, Siberia, Turkestan, and Egypt also furnish large quantities of turquois, but the stones from these mines do not retain their color as well as the Persian turquois, which is the hardest of them all.

One of the tales from Egypt runs as follows, and dates from the time of the early dynasties: "The reigning Pharaoh, being depressed, took a trip on the lake near the palace, in a boat rowed by beautiful maidens, twenty in all. While bending to her oar, the fairest of them let fall into the water from her hair a fine turquois, (Mafkat, it was called.) She was sad at her loss. The court magician, who was with the Pharaoh, recited a charm of great power, and the stone rose up through the water so it could be picked up from the waves, and the maiden was again happy."

The loss of a turquois was a most ominous event, portending for its owner illness and physical disability, only cured by the rites of the medicine man or priest.

According to the Hindoo mystic of India, it was very lucky to have a turquois at hand at the time of the new moon. Whoever after first looking at the moon should cast his eyes on the turquois was destined to enjoy great wealth. The little finger was the one to carry the ring set with this stone.

In Thibet, the most highly prized stone is the turquois. It serves for ornaments and also as decoration on any religious objects. Some curious prayer wheels are studded with this stone. The priests wear them in strings of beads, and in travelling use them as money, to pay for their food and shelter. In Thibet the turquois was used equally to please demons and gods, in offerings. They were guards against the "Evil Eye," and they were often set in the forehead of a Buddha. The women of Thibet prize the cloth amulets covered with turquois beads, which they get from the Llama, whose blessing makes them a protection from all evil. "It is a turquois, not a stone," so these people say, just as the Chinese revere their jade. There are thrones of gold and turquois here, arrowheads of turquois, and a life

sized Buddha of solid gold sits silently in the temple of Cho Kang in Thibet, with a crown of wonderful turquois on its head. The priests call this image a mircah. It is made of four metals alloyed, silver, copper, zinc, and iron, symbol of the world under the gold. The precious stones in necklaces hang over its breast in great numbers. The crown is of gold and turquois, five upright leaves, within each an image of Buddha, and from the center image falls a matchless pendant turquois, six inches long, and four inches wide. What a vision to greet the eye of the adventurous traveler!

They have names for their finest turquois, "The Resplendant Turquois of the gods," and "the White Turquois of the gods." A tradition relates that the largest stone found up to the 8th Century A. D. was discovered by King Dur-crong-mang-po on the summit of the mountain near the sacred city of Shasa.

In Mexico the turquois is most plentiful and greatly valued. Animal and bird forms carved of turquois by the Indians ages ago are found in graves in Arizona and New Mexico. These are fetiches used to guard the owners of the "New World" from harm, just as the peoples of the "Old World" called this a "lucky stone." The Spaniards worked the mines at Los Carillos in the 17th Century, with the consent

of the Indians. In 1680 a landslide occurred in the mountains and mines and miners were overwhelmed. Believing that the Spaniards were responsible for this, and fearful of their god's displeasure, the Indians arose and expelled the Spaniards completely from the mines.

One mountain in particular, called the Chalchihink, was named for the turquois. Dr. Kunz wrote in 1890, that the sale of turquois from this volcanic mountain was at the rate of twenty-five cents per mouthful, the method used in transporting the stones.

The Indians decorated their teeth with turquois, and in the burial places of Central America, Mexico, and Vera Cruz, teeth are found so decorated, proving that fine dentistry must have been common in those days.

The turquois of the Los Carillos mines is rudely extracted by building large fires at the base of the rock, thus heating it. Then cold water is dashed over it, splitting it and the fragments are cut into rude hearts, and drilled to string for amulets. These are called "malacates." The religious veneration with which the New Mexican Indians regard the turquois is noted by Major Hyde when he explored the region in 1880. Some Pueblo Indians from Santo

Domingo expressed strong disapproval of his actions in extracting the turquois from the old mine. They felt the sacred stone should not pass into the hands of those whose Saviour was not a Montezuma.

The Apache name for this stone is duklij. The Mexican man must have a turquois. Without it he will not receive proper recognition. It was called the thunder stone. Legend says that if the real end of a rainbow were ever found, and the damp ground were searched, a fine turquois would be the reward. Any hunter was assured accurate aim if one of these stones were affixed to his bow.

Whether as a temple offering or for decoration of the divine images, a fine unspotted and very clear turquois was always used. Stones of this quality were brought to Mexico from afar and were very rare. Some specimens were of a rounded shape, like a hazel nut cut in half, others broad and flat. Tradition says that the God of Fire, Xiuhtecutli, or Ixcocauhqui, presided over the ceremony of piercing the ears of boys and girls. The image of this god was decorated with earrings encrusted with mosaic of turquois.

The mines of Los Muertos, nine miles from Tempe, Arizona, have long furnished fine amulets of Zerrei workmanship. A seashell coated with black pitch

and incrusted with turquois and garnets in a mosaic representing a toad, the sacred emblem of the Zerreis, is one noted piece.

The Navajos have four rain-making gods. Necklaces for these gods are made of coral and turquois as shown by the ceremonial sacred painting. They are colored black, blue, yellow, and white, for the north, south, west, and east. The whole painting is 9 x 13 feet, and is guarded on three sides by magic wands, the east is left unprotected, since only good spirits come from that direction. Each rain god carries on his right wrist a tobacco pouch, bearing the figure of a Stone pipe. The Navajos believe that in the pouch the god places a ray of sunlight with which to light his pipe. When he smokes, clouds form in the sky, and rain descends. In the sacred pictures representing the God of the Whirlwind, is a figure that wears ear pendants and a necklace of turquois.

After the Spanish conquest there were sent to Montezuma by Cortes, five ornaments incrusted with turquois, so disposed as to make them intertwined serpents, a crozier with mosaic turquois ending in a serpent's head, a pair of large earrings, a mitre of ocelor skin, decorated with turquois mosaic and a staff of office with similar decoration. One of these serpent masks is in the British Museum.

The Aztecs worshipped a serpent god and they at first believed Cortes to be that god. A ceremonial mask is also in the British Museum, the form of a human skull with an incrustation of turquois mosaic and jet in five alternate bands, part of the nose being removed and tablets of pink shell inserted. A Sacred Well was near the great Temple Pyramid at Yucutan, Mexico, and into it the priest threw all kinds of offerings, gems, and animals, maidens, and prisoners of war. Many of the offerings have been recovered, and tell us of the artistic skill and beauty of that time.

The mystic Lake Quatavita of Central America held plentiful supplies of gold, emeralds, and turquois. Here there were held semi-annual festivals. A legend tells of a handsome young man, the chosen Caciqui, whose naked body was covered with clay, and sprinkled over with gold dust. He stood on a raft, upon which were laid the treasures to be offered to the gods on that particular day. Arrived at a certain spot, before the eyes of the people on the shore, he cast the offerings and himself into the lake. When the gold had been washed off he swam ashore. When this resplendent figure, shining in the sun, appeared to the Spaniards, they named it the Cacique El Dorado. As it sprang from the raft the people on

the shore turned their backs, and threw more offerings over their shoulders. Attempts to regain the treasures by draining off the water of the lake have met with no great success, but it is said an English Company has recently been at work here.

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